Dear reviewers,

My co-authors and I appreciate you for the time you spent reviewing our manuscript and providing valuable comments to help us improve the revised version of our paper. We try our best to address every one of the comments.

To do so, we would need some clarification from the second reviewer, Peter Wilcock. In your review, you state in major comment C) that " the proposed hiding function (Eq. 23, Eq. 24; Figure 2) has the unfortunate property that τri does not equal τr50 at Di = D50. See figure of hiding functions included below. Please explain how this can make sense." And that we should "address the fact that [our] model in effect defines two different values for the reference stress for D50".

At the moment, we do not understand this point as Equations 23 and 24 provide a single value of reference shear stress for D_{50}. As $\frac{\tau_{r,i}}{\tau_{r,50}} = \left(\frac{D_i}{D_{50}}\right)^{1-\gamma_i}$, when $D_i = D_{50}$, we do have $\tau_{r,i} = \tau_{r,50}$. Below is the figure we obtain when plotting the hiding functions of Shvidchenko et al. (2001, as S2001), Wilcock and Crowe (2003, as WC2003) and Le Minor et al. (2025, as LM2025, new model applied to 3 values of grain size sorting). This figure shows results for the LM2025's model that differ from the ones provided in your review (otherwise the curves for S2001 and WC2003 are similar to yours).
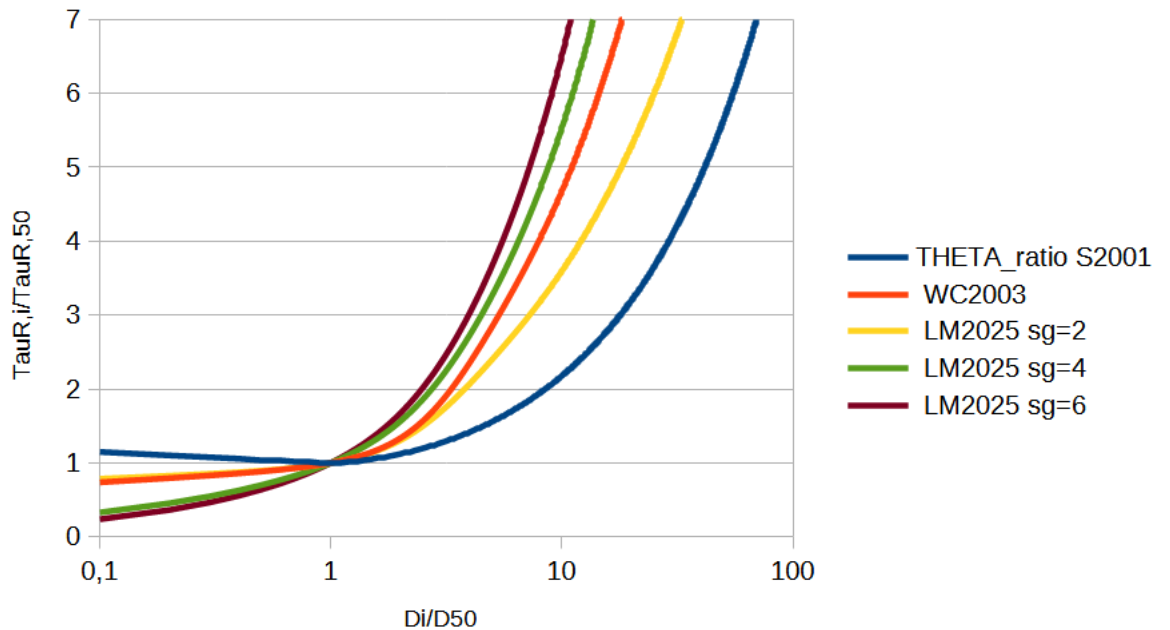
To help us better understand your comment, could you provide us with some clarification on how you proceeded to make the plot of the different hiding functions provided in your review?

Sincerely,

Marine Le Minor